



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Lothar Kempen  
Assignee: Maven Technologies, LLC  
Title: APPARATUS AND METHOD FOR IMAGING  
Serial No.: 10/602,555 Filing Date: June 23, 2003  
Examiner: Hoa Q. Pham Group Art Unit: 2877  
Docket No.: M-15218-3C US Confirmation No. 1187

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**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR § 1.97(B)**

Mail Stop AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97(c)**

Dear Sir:

Pursuant to 37 CFR § 1.56, § 1.97 and § 1.98, the document listed on the accompanying Substitute for form 1449/PTO is called to the attention of the Examiner for the above patent application. A Copy of the documents are enclosed.

Citation of the above documents shall not be construed as:

1. an admission that the documents are necessarily prior art with respect to the instant invention;

2. a representation that a search has been made, or

3. an admission that the information cited herein is, or is considered to be

material to patentability as defined in §1.56(b).

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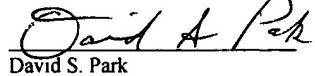
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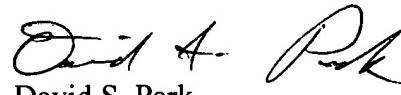
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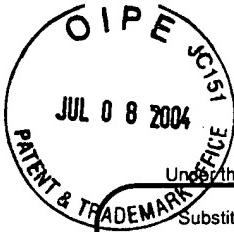
  
David S. Park

7/6/04  
Date

Respectfully submitted,

  
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Attorney for Applicant(s)  
Reg. No. 52,094

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Sheet

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**Complete if Known**

Application Number	10/602,555
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First Named Inventor	Lothar Kempen
Art Unit	2877
Examiner Name	Hoa Q. Pham
Attorney Docket Number	M-15218-3C US

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> ( <i>if known</i> )			
		US- 2004/0023247A1	02-05-2004	Xu et al.	
		US- 2004/0012676A1	01-22-2004	Weiner et al..	
		US- 2004/0030504A1	02-12-2004	Helt et al.	
		US- 2004/0038268A1	02-26-2004	Pirrung et al.	
		US- 2004/0002167A1	01-01-2004	Andersson et al.	
		US- 2002/0182717A1	12-05-2002	Karlsson	
		US- 2002/0154311A1	10-24-2002	Ivarsson	
		US- D472,644S	04-01-2003	Dawson et al.	
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		US- 5,955,729	09-21-1999	Nelson et al.	
		US- 6,589,798B1	07-08-2003	Loefas	
		US- 6,503,760 B2	01-07-2003	Malmqvist et al.	
		US- 2003/0022388A1	01-30-2003	Roos et al.	
		US- 5,922,594	07-13-1999	Loefas	
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		US- 6,143,574	11-07-2000	Karlsson et al.	
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		US- 6,207,381B1	03-27-2001	Larsson et al.	

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> ( <i>if known</i> )				
		WO 03/102580A1	12-11-2003	Saeften et al.		
		WO 03/056337A1	07-10-2003	Loefas		
		AU 742417	02-11-2000	Ivarsson		
		WO 98/32002	07-23-1998	Herbai et al.		
		WO 97/19375	05-29-1997	Ivarsson et al.		
		WO 96/38729	12-05-1996	Wahlstroem et al.		

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Sheet

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Examiner Name	Hoa Q. Pham
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		US- 2002/0019019 A1	02-14-2002	Hamalainen et al.	
		US- 6,143,513	11-07-2000	Loefas	
		US- 5,972,612	10-26-1999	Malmqvist et al.	
		US- 6,200,814 B1	03-13-2001	Malmqvist et al.	
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		US- 6,289,286 B1	09-11-2001	Andersson et al.	
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		US- 5,641,640	06-24-1997	Hanning	
		US- 5,164,589	11-17-1992	Sjoedrin	
		US- 5,313,264	05-17-1994	Ivarsson et al.	
		US- 5,573,956	11-12-1996	Hanning	
		US- 2003/0067612A1	04-10-2003	Ivarsson	
		US- 4,238,565	12-09-1980	Hornby et al	
		US- 4,256,834	03/17/1981	Zuk et al.	
		US- 5,922,604	07/13/1999	Stapleton et al.	
		US- 6,008,010	12/28/1999	Greenberger et al.	
		US- 6,045,996	04/04/2000	Cronin et al.	

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		WO 96/08720	03-21-1996	Sternesjoe et al.		

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Sheet

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Application Number	10/602,555
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Art Unit	2877
Examiner Name	Hoa Q. Pham

Attorney Docket Number M-15218-3CUS

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Sheet	4	of	7	Attorney Docket Number	M-15218-3C US

<b>NON PATENT LITERATURE DOCUMENTS</b>				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
		TADASHI SAITO, ET AL. "Optical Characterization of Very Thin Hydrogenated Amorphous Silicon Films Using Spectroscopic Ellipsometry"; Japanese Journal of Applied Physics; Vol. 30, No. 11B, November 1991. pp. L1914-L1916		
		"Handbook of Optics", Michael Bass Editor in Chief, by The Optical Society of America; Vol. 1; pp. 4.23, 4.24; 1995 McGraw-Hill, Inc.		
		BASS, ET AL. "Handbook of Optics", by The Optical Society of America; Vol. 1; Section 41.10; 1995 McGraw-Hill, Inc.		
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		EGGINS, "Biosensors: An Introduction", pp. 112-113, 1987 John Wiley & Sons		
		DANNY VAN NOORT ET AL. "Monitoring Specific Interaction of Low Molecular Weight Biomolecules on Oxidized Porous Silicon Using Ellipsometry", Biosensors & Bioelectronics Vol. 13, No.3-4 pp. 439-449, 1998 Elsevier Science, S.A. Great Britain		
		GANG JIN ET AL. "Imaging Ellipsometry for Biosensor Applications" Transducers '95. Eurosensors IX, Digest of Technical Papers Vol 2, Sessions A7-D13, Papers No 232-496 pp. 509-512, Stockholm, Sweden, June 1995		
		JINYU WANG "Waveguide Ellipsometry Biosensors: Concept and Preliminary Analysis", SPIE Vol. 1648, Fiber Optical Medical and Fluorescent Sensors and Applications pp. 44-50, 1992		
		ULF JONSSON ET AL. "Flow-Injection Ellipsometry – An in Situ Method for the Study of Biomolecular Adsorption and Interaction at Solid Surfaces," Colloids and Surfaces, 13 (1985) pp. 333-339, 1985 Elsevier Science Publishers BV, Amsterdam, The Netherlands		

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				<b>Examiner Name</b>	Hoa Q. Pham
Sheet	5	of	7	Attorney Docket Number	M-15218-3C US

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
		JONSSON, ULF ET AL. "Biosensors Based on Surface Concentration Measuring Devices-The Concept of Surface Concentration" Progress in Colloid and Polymer Sci. Vol. 70, pp. 96-100, 1985			
		SCHENA, MARK "DNA Microarrays: A Practical Approach" Edited by Mark Schena, Department of Biochemistry, Beckman Center, Stanford University Medical Center, Stanford, USA, Oxford University Press, 1999			
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		A. BRECHT ET AL. "Biosensors: Fundamentals, Technologies and Applications" GBF Monographs, Vol. 17, pp.174-178, 1991 Germany			

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Sheet 6 of 7 Attorney Docket Number M-15218-3C US

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		HAKAN NYGREN ET AL. "Kinetics of Antibody-Binding to Surface-Immobilized Antigen: Influence of Mass Transport on the Enzyme-Linked Immunosorbent Assay (ELISA)", Journal of Colloid and Interface Science, Vol. 107, No. 2 pp. 560-566, October 1985 Academic Press, Inc.	
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		DR. RUDOLF OLDENBOURG "Metamorph Imaging System", <a href="http://www.image1.com/products/metapolscope/">http://www.image1.com/products/metapolscope/</a> Universal Imaging Corporation Last Updated 10 Jun 1999 pp.1-2	
		DR. RUDOLF OLDENBOURG "A new view on polarization microscopy", Nature, Vol. 381, pp.811-812, 27 June 1996	

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				<b>First Named Inventor</b>	Lothar Kempen
				<b>Art Unit</b>	2877
				<b>Examiner Name</b>	Hoa Q. Pham
Sheet	7	of	7	Attorney Docket Number	M-15218-3C US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
		CLIFFORD C. HOYT ET AL. "Structural analysis with quantitative birefringence imaging", American Laboratory, pp. 34-42, July 1999		
		DIRK HONIG ET AL. "Direct visualization of monolayers at the air-water interface by Brewster angle microscopy", J. Phys. Chem., pp. 4590 & 4592, 1991 American Chemical Society		
		S. HENON ET AL. "Microscope at the Brewster angle: direct observation of first-order phase transitions in monolayers", Rev. Sci. Instrum. 62, (4) pp. 936-939, April 1991 American Institute of Physics		
		GANG JIN ET AL. "A biosensor concept based on imaging ellipsometry for visualization of biomolecular interactions", Analytical Biochemistry 232, pp.69-72, 1995		
		PENTTI TENGVALL ET AL. "Complement activation by 3-mercaptopropanediol immobilized on gold surfaces", Biomaterials Vol. 17, No. 10 pp. 1001-1007, 1995 Elsevier Science Ltd., Great Britain		
		H. ARWIN "Spectroscopic ellipsometry and biology: recent developments and challenges", Thin Solid Films 313-314, pp.7640774, 1998 Elsevier Science S.A.		
		CHRISTOPHER PALMER "Diffraction Grating Handbook", pp. 35-44, 2000 Richardson Grating Laboratory, Rochester, New York		
		ERWIN G. LOEWEN "Diffraction Gratings, Ruled and Holographic", Applied Optics and Optical Engineering, Vol. IX, pp.33-71, Bausch and Lomb, Inc., Rochester, New York 1983 Academic Press, Inc.		

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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